Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are respectfully requested.

Claims 1 and 5 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Okabe (US 6,459,285) in view of Kim (US 6,229,118). Claims 2, 3, 6 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Okabe in view of Kim and further in view of Zohni (US 6,540,467). Claims 4 and 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Okabe in view of Kim and Zohni and further in view of Tanaka (US 5,777,485).

Claims 1 and 5 have been amended so as to further distinguish the present invention, as recited therein, from the references relied upon in the above-mentioned rejections. As a result, the above-mentioned rejections are submitted to be inapplicable to the amended claims for the following reasons.

Claim 1 is patentable over the combination of Okabe and Kim, since claim 1 recites a wafer handling checker including, in part, a vacuum pincette having a conductive suction part for operating on a plurality of training operation wafers; and state detection means for detecting which of the plurality of training operation wafers housed in a cassette the vacuum pincette is in contact with by detecting a potential of each electrode of the cassette or a current flowing to an electrode of the cassette associated with the contacted training operation wafer. The combination of Okabe and Kim fails to disclose or suggest the state detection means as recited in claim 1.

Okabe discloses a burn-in apparatus including an isothermal chamber 11, wafer holders 12, a slot array 13, a controller 14, and bridge lines 15. The wafer holders 12 are adapted to hold semiconductor wafers 16 having semiconductor devices formed thereon in the slot array 13. Each of the wafer holders 12 includes a stage board 51, a chuck 52, a vacuum outlet 53, and electrode chips 55. The chuck 52 and the vacuum outlet 53 are adapted so as to keep the semiconductor wafer 16 secured to the stage board 51 during screening. The controller 14 generates a voltage source and a control signal for screening the semiconductor devices on the wafers 16 and supplies them to the semiconductor devices on the wafers 16 via the bridge lines 15 and the electrode chips 55. (See column 4, lines 27-62; column 6, lines 5-15; and Figures 1 and 3C).

The rejection indicates that the controller 14 corresponds to the claimed state detection means and the vacuum outlets 53 correspond to the claimed vacuum pincette. However, there is no disclosure or suggestion in Okabe that the vacuum outlets 53 have a conductive suction part. Further, as discussed above and admitted in the rejection, the vacuum outlets 53 are used to suction the semiconductor wafers 16 to the stage board 51 and are not electrically connected to the bridge lines 15, which supply the source voltage and the control signal from the controller 14 to the semiconductor devices on the semiconductor wafers 16 via the electrode chips 55. Therefore, since the vacuum outlets 53 are not electrically connected to the controller 14, it is apparent that the controller 14 cannot detect which of the semiconductor wafers 16 housed in the slot array 13 the vacuum outlet 53 is in contact with by detecting a potential of each electrode chip 55 of the slot array 13 or a current flowing to an electrode chip 55 of the slot array 13 associated with the contacted semiconductor wafer 16. As a result, Kim must disclose or suggest this feature of claim 1.

Kim discloses a wafer handling apparatus 200 including a controller 330 and a handler 205. The handler 205 includes an arm 220 and an effector 210. An end portion of the effector 210 has a pair of suction holes 212 for holding a wafer 202 to the effector 210 and a pair of electrodes forming a wafer detecting sensor 214 that are used by the controller 330 to determine whether the wafer 202 is present on the effector 210. (See column 4, lines 40-43; column 6, lines 31-38; and Figure 3).

Based on the above discussion and the illustration in Figure 3 of Kim, it is apparent that the controller 330 uses the two electrodes of the wafer detecting sensor 214 to determine whether or not the wafer 202 is present on the effector 210. However, the state detection means recited in claim 1 is not only capable of determining that the vacuum pincette is in contact with a training operation wafer, but capable of detecting which of the plurality of training operation wafers housed in the cassette the vacuum pincette is in contact with by detecting a potential of each electrode of the cassette or a current flowing to an electrode of the cassette associated with the contacted training operation wafer. Since the controller 330 uses the two electrodes of the wafer detecting sensor 214 for performing detection, there is no way by which the controller 330 can differentiate between two wafers 202 housed in a cassette because the controller 330 is not provided with any information related to a cassette for performing the detection. Therefore, it is apparent that the controller 330 also fails to correspond to the claimed state detection means. As

a result, Kim fails to address the deficiency of Okabe and the combination of Okabe and Kim fails to render claim 1 obvious.

As for (1) Zohni and (2) Tanka, these references are relied upon as disclosing (1) display means and decision means, and (2) output means for generating sound, respectively. However, it is apparent that neither of these references discloses or suggests the above-discussed features recited in claim 1.

As for claim 5, it is patentable over the references for reasons similar to those set forth above in support of claim 1. That is, claim 5 recites, in part, a controller operable to apply a voltage between each electrode of a cassette and a conductive suction part of a vacuum pincette, and detect which of a plurality of training operation wafers housed in a cassette the vacuum pincette is in contact with by detecting a potential of each electrode of the cassette or a current flowing to an electrode of the cassette associated with the contacted training operation wafer, which features are not disclosed or suggested by the references.

Because of the above-mentioned distinctions, it is believed clear that claims 1-8 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-8. Therefore, it is submitted that claims 1-8 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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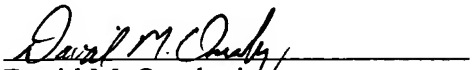
By: 

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